



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,695	01/18/2001	Frank M. Keese	1108334- 0431	6465

7590

02/02/2004

Jason E. Pauls  
Foley & Lardner  
Suite 3800  
777 East Wisconsin Avenue  
Milwaukee, WI 53202-5664

EXAMINER

GUARRIELLO, JOHN J

ART UNIT PAPER NUMBER

1771

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/765,695

Applicant(s)

KEESE, FRANK M.

Examiner

John J. Guarriello

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-27 is/are pending in the application.
- 4a) Of the above claim(s) 10-19 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 20-24, 26, 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

15. The Examiner acknowledges , the extension of time, the amendment, and the RCE of 9/16/2003.

The Examiner notes for the record that the 1449 of 6/14/2001 is missing. Please supply a copy.

The Examiner acknowledges for the record the affirmation of the Restriction to Group I, claims 1-9 and 20 and 21 with traverse. New claims 23 and 24 are considered with Group I. Claims 10-19 are withdrawn as to the non-elected method claims.

New claim 25 is withdrawn since apparatus claims are not part of the elected invention of Group I. The Examiner acknowledges that upon allowance of the elected claims a request for rejoinder will be considered in accordance with M.P.E.P. 821.04 and In re Ochiai, 37 USPQ 2D. 1127 (Fed. Cir. 1995) of method claims 10-19. Since there were no arguments for traverse of the Restriction, the Restriction is made final.

16. It is the Examiner's position that new claims 26 and 27 are directed to Group I, except the dependency should not be on the apparatus claim 25. Applicant should specify what the appropriate independent claim should be or correct the dependent claims reference to the independent claim. Furthermore, claim 20 states dependent upon "any one of claims 1-9", but claim 5 is cancelled. This needs to be corrected.

***Claim Rejections - 35 USC § 112***

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 21, 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "said belt" in line 6, but the preamble of the claim is directed to an non-curling reinforced membrane, not to a belt.

The reference to "belt" in the claim, line 2 "for use as a machine belt" is merely intended use. There is insufficient antecedent basis for this limitation in the claim.

Claims 26 and 27 are not clear because they are directed to a "fiber-reinforced flexible composite membrane" and claim 25 is directed to an apparatus. The claims are dependent upon a withdrawn claim to an apparatus claim 25. Correction is required.

***Claim Rejections - 35 USC § 102***

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Effenberger et al. 5,230,937.

Applicant's arguments regarding the perfluoropolymer coated on each side (which corresponds to the claimed composite membrane having

Art Unit: 1771

two distinct opposing faces) of a reinforcement in a balanced state, which balanced state is defined in the specification on page 4, have been considered but are not persuasive because it is the Examiner's position that since the structure in the instant claims appears to be the same structure as in, Effenberger '937, the balance feature associated with the structure must be inherently exhibited. The Examiner bases this conclusion on the fact that Effenberger '937 provides the coating via spraying or dipping, see (column 6, lines 42-47; and Example 1, column 10, lines 65-68, column 11, lines 1-21), and the fact Applicant's specification sets forth such processes are responsible for creating the claimed balanced state. Thus, claims still lack novelty.

As set forth in earlier office actions, Effenberger describes a reinforced composite which corresponds to a membrane structure since there is no defined porosity (column 4, lines 7-10). with a substrate coated with a perfluoropolymer, (see abstract; column 3, lines 50-59), and overcoated with an elastomer which can be a fluoroelastomer or blend thereof, (see abstract). Effenberger

describes the reinforcement material is glass or fiberglass among other materials possible, (column 4, lines 59-63). Effenberger describes the fluoropolymer can be PTFE among others, (column 6, lines 48-62; column 8, lines 11-16). Regarding the "balanced state", it is the Examiner's position that Effenberger applies the perfluoropolymer evenly which is stated as spraying or dipping , (column 6, lines 42-47) so as to achieve a balanced state, (column 8, lines 11-54). Effenberger still describes the essential limitations of the claimed invention. Claims lack novelty.

20. Claims 1-4, 6, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Knox et al. 5,217,797.

Applicant's arguments regarding the reinforcement material of glass fibers have been considered but are not persuasive because in column 3, lines 43-49, describes other reinforcing fibers can be glass fibers. Applicant's argument regarding claim 21 is directed to a belt is misplaced since the claim is directed to a reinforced membrane for **use as a belt**. Knox describes reinforced flexible composite

materials which can be liners, among other things, (column 1, lines 13-18). Knox also describes a composite diaphragm which corresponds to a composite reinforced membrane, (column 1, lines 13-18) since there is no defined porosity, (see abstract). Knox describes the composite to be flexible with a PTFE layer of fibers which can be reinforced by glass (column 3, lines 48-49). Knox describes an elastomeric layer can be attached to the fluoropolymer layer of PTFE, (column 2, lines 62-64). Knox describes the elastomer layer can be one with silicone moieties, (column 4, lines 61-68; column 5, lines 1-5). Knox describes the flexibility of the composite material, (column 4, lines 40-60). Regarding the "balanced state", it is the Examiner's position that Knox applies the fluoropolymer on each side of layer "evenly" so as to achieve a balanced state, (column 3, lines 19-39; column 4, lines 6-13). Further since the structure in the instant claims appears to be the same structure as in the prior art, Knox, it is the Examiner's position that the balance feature associated with the structure must be inherently exhibited. Thus, Knox describes the essential limitations of the claimed invention. Claims lack novelty.



***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

19. Claims 1, 7-9, 20, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Effenberger et al. 5,230,937 in view of Knox et al. 5,217,797 and Petropoulos et al. 5,021,109).

Applicant's arguments have been considered above in paragraph # 19 and # 20, but they are not persuasive for the reasons given above in paragraph # 19 and 20.

Effenberger describes the flexible composite material as above in paragraph # 19. Effenberger differs because it is silent about using silicone rubber.

Knox describes the flexible composite material as above in paragraph # 20, but further describes silicone moieties (corresponding to silicone rubber),(column 5, lines 46-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the silicone elastomers of Knox in the flexible material of Effenberger for the silicone moieties motivated with the expectation that properties of chemical resistance and flexibility would improve as noted in Knox, (column 1, lines 60-63). Regarding the use as a belt this would be an obvious modification of a reinforced membrane since the properties of the perfluoropolymer composites are similar to the liners of Knox, (column 1, lines 14-18), and the chemical liners, escape chutes, escape hoods as described by Effenberger, (column 3, lines 30-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the silicone elastomers of Knox and the flexible material perfluoropolymer composite of Effenberger in the multilayered belt of Petropoulos 5,021,109 motivated with the expectation that improved flexibility would be evidenced, (column 3, lines 59-68; column 4, lines 20-27). Thickness of the belt would be obvious as noted by '109, (column 4, lines 20-25).

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Guarriello whose telephone number is 571-272-1476. The examiner can normally be reached on Monday to Friday from 8 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached on (571-272-1478). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0994.




John J. Guarriello:gj

Patent Examiner

January 16, 2004

January 22, 2004



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700